ASSESSMENT OF THE PERIOPERATIVE CARE AT MBARARA REGIONAL REFERRAL HOSPITAL

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Standards of Perioperative Care

- According to the Uganda Ministry of Health 2010 Clinical Guidelines...
  - Read the notes/medical records of the patient
  - Obtain a standard history and PE
  - Explain the procedure to the patient and ensure understanding
  - Ensure informed consent form is signed
  - Obtain pt weight and baseline vitals
  - Check site and side of the operation
  - Check period of fasting
  - Monitor, record every 5 min. or more frequently, BP, Pulse, Respiration, Colour, oxmetry
After anesthesia ensure that
- the patient recovers from effects of anesthesia
- Has stable vital signs
- Is returned to the ward in the fully conscious state, no worse, or if at all possible, even better than before operation.
Standards of Perioperative Care

According to the American Society of Anesthesiologists Guidelines...

- Review available medical record, interview and perform focused PE
- Ensure consent has been obtained
- Document in the chart that the above has been performed
- Monitor the patient’s oxygenation, ventilation, circulation and temperature at least every 5 minutes for all anesthetics
- Record the pertinent events of the procedure
After anesthesia
- Conduct a postanesthesia evaluation, assessing patients for sequelae from anesthetic interventions and arranging for appropriate follow-up.
- Ensure availability of nursing personnel and equipment as required for safe postanesthetic care
- Ensure transfer of care information pertinent to the patient’s specific needs and ensuring a safe transition
- Remain with the patient as long as medically necessary and until the receiving health care provider has all the information needed to assume care
To assess the perioperative care delivered to surgical patients at Mbarara Regional Referral Hospital (MRRH).

To explore the opinions of hospital staff on the quality of perioperative care at MRRH.

To discover the discrepancies between the opinion of staff and the actual care provided to surgical patients at MRRH.

To determine the barriers to improving certain aspects of perioperative care at MRRH.
Methodology: Component 1

- Patient file review conducted at Mbarara Regional Referral Hospital
- A sample of surgical cases conducted between the months February, March, and April was provided
- 78 patient files were randomly selected
- Data collected using Microsoft Excel
Two questionnaires were administered:

1. To anesthesia staff: exploring the staff’s assessment of pre- and intraoperative care
   - Questions regarding preoperative assessment, intraoperative monitoring and documentation, barriers to adequate documentation, etc.
   - N = 9

2. To surgical and nursing staff: exploring the hospital staff’s assessment of postoperative care
   - Questions regarding postoperative medication delivery and documentation, barriers to proper postoperative care, etc.
   - N = 15
RESULTS:
Component 1
Type of Anesthesia Delivered

- General (n=64)
- Regional (n=11)
- Combination (n=2)
- Not Recorded (n=1)

82%
14%
3%
1%
Intraoperative

- Adequate intraoperative monitors:
  - According to Ministry of Health 2010 Uganda Clinical Guidelines: 0% of cases
  - According to ASA standards: 0% of cases

- WHO surgical safety checklist utilized: 0% of cases

- Post-extubation condition documented: 12.8% of cases (n=10)
**Postoperative**

**Immediate Post-Op Vitals?**

- Yes: 11
- No: 66

**Daily Post-Op Vitals?**

- Yes: 1
- No: 76

**NOTE:** Postoperative data for 77 pts; 1 pt died during surgery
Pain medications given as directed?

Yes: 12
No: 59
No Rx: 6

Other medications given as directed?

Yes: 36
No: 41
RESULTS:
Component 2
Questionnaire 1:  
Anesthesia Staff Responses

- Are you familiar with the World Health Organization (WHO) surgical safety checklist?
  - Yes 88.9%
  - No 11.1%

- How often do you think that the WHO surgical safety checklist is used in the MRRH surgical operating theater?
  - In less than 10% of the cases 44.4%
  - 10–25% of the cases 11.1%
  - 26–50% of the cases 22.2%
  - 51–75% of the cases 22.2%
  - In more than 75% of the cases 0%
How often do you think that patients’ preoperative evaluations are documented?

- In less than 10% of the cases 0%
- 10–25% of the cases 11.1%
- 26–50% of the cases 33.3%
- 51–75% of the cases 33.3%
- In more than 75% of the cases 22.2%
The following are basic standards of monitoring for all patients receiving anesthetics

- Blood pressure 88.9%
- Heart rate 100%
- EKG/ECG 88.9%
- Temperature 66.7%
- Inspired/Expired Gases 55.6%
- SpO₂ 100%
How often do you think that all necessary parameters are monitored at the MRRH surgical operating theater?

- In less than 10% of the cases 0%
- 10–25% of the cases 0%
- 26–50% of the cases 0%
- 51–75% of the cases 55.6%
- In more than 75% of the cases 44.4%
What are the barriers to proper intraoperative documentation?

- Lack of time 22.2%
- Unfamiliarity with the anesthesia monitoring machine 0%
- Anesthesia record is difficult to understand 0%
- Unfamiliarity with the standards of monitoring (i.e. I am not certain which parameters are important to record) 0%
- Lack of supervision/instruction to staff in training 22.2%
- Other (please explain): 77.8% none, laziness, underestimation of importance and need for proper documentation, poor attitude of staff, ppl fired/resigned but have no way out, documentation paper out of stock
Questionnaire 2: Surgical/Nursing Staff Responses

How often do you think that patients’ vitals are monitored immediately post-operation after returning from the surgical operating theater?

- In less than 10% of the cases 40%
- 10–25% of the cases 20%
- 26–50% of the cases 26.7%
- 51–75% of the cases 13.3%
- In more than 75% of the cases 0%
How often do you think that patients’ pain medications are given as directed postoperatively?

- In less than 10% of the cases 20%
- 10–25% of the cases 20%
- 26–50% of the cases 20%
- 51–75% of the cases 33.3%
- In more than 75% of the cases 6.7%
How often do you think that patients’ other medications (i.e. antibiotics) are given as directed postoperatively?

- In less than 10% of the cases: 0%
- 10–25% of the cases: 0%
- 26–50% of the cases: 33.3%
- 51–75% of the cases: 60%
- In more than 75% of the cases: 6.7%
What are barriers to proper postoperative management and monitoring, including proper medications, vitals monitoring, fluids, etc (circle all that apply)?

- Lack of supplies **86.7%**
  - Which supplies? _Abx, analgesics, preps/dressings, BP cuffs, thermometers, pulse oximeters, IV fluids, oxygen, sundries_
- Lack of properly trained staff **26.7%**
- Lack of time **33.3%**
- Lack of supervision/instruction to staff in training **53.3%**
- Inadequate communication between surgical/anesthesia/nursing staff **53.3%**
- Unfamiliarity with standard postoperative treatment recommendations **73.3%**
- Other (please specify): **46.7%** _understaffing, lack of motivation, incentive/seriousness, staff over-worked, nurses uncomfortable giving opioids_
What are barriers to administering medication as prescribed postoperatively (circle all that apply)?

- Lack of properly trained staff 33.3%
- Lack of time 33.3%
- Difficulty locating patient’s file 26.7%
- Inadequate communication between surgical/anesthesia/nursing staff 46.7%
- Lack of supervision/instruction to staff in training 40%
- Other (please specify): 40% lack of staff/standards of operating procedure/staff/devotion to job, poor attitude towards pt care
What are the barriers to proper medical documentation, including recording patient’s vitals, medication charting, etc (circle all that apply)?

- Lack of properly trained staff 26.7%
- Lack of time 46.7%
- Difficulty locating patient’s file 26.7%
- Inadequate communication between surgical/anesthesia/nursing staff 60%
- Lack of supervision/instruction to staff in training 53.3%
- Other (please specify): 40% work system, attitude, lack of seriousness/staff/morale, no accountability in case of errors, laziness
## Summary

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Surgery preoperative assessment completed</td>
<td>72</td>
<td>92</td>
</tr>
<tr>
<td>Anesthesia preoperative assessment completed</td>
<td>51</td>
<td>65</td>
</tr>
<tr>
<td>Adequate intraoperative monitoring</td>
<td>0</td>
<td>0</td>
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<tr>
<td>WHO surgical safety checklist utilized</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Post–extubation status recorded</td>
<td>10</td>
<td>13</td>
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<tr>
<td>Postoperative vitals recorded</td>
<td>11</td>
<td>14</td>
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<tr>
<td>Daily vitals recorded</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pain medicine given as directed</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Other medications given as directed</td>
<td>36</td>
<td>47</td>
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<tr>
<td>Pre–Op Evaluation</td>
<td>Actual</td>
<td>Response</td>
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<tr>
<td></td>
<td>Anesthesia – 65% Surgery– 92% Avg percentage –78.8%</td>
<td>&lt;10% of the cases 0% 10–25% of the cases 11.1% 26–50% of the cases 33.3% 51–75% of the cases 22.2% &gt;75% of the cases 22.2%</td>
</tr>
<tr>
<td></td>
<td>0 %</td>
<td>&lt;10% of the cases 44.4% 10–25% of the cases 11.1% 26–50% of the cases 22.2% 51–75% of the cases 22.2% &gt;75% of the cases 0%</td>
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<thead>
<tr>
<th>WHO Surgical Checklist Utilized</th>
<th>Actual</th>
<th>Response</th>
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<tr>
<td></td>
<td>0 %</td>
<td>&lt;10% of the cases 44.4% 10–25% of the cases 11.1% 26–50% of the cases 22.2% 51–75% of the cases 22.2% &gt;75% of the cases 0%</td>
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<tr>
<td>Necessary Intraoperative Monitors</td>
<td>Actual</td>
<td>Response</td>
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<td>0 %</td>
<td>&lt;10% of the cases 0%</td>
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<td>10–25% of the cases 0%</td>
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<td>51–75% of the cases 55.6%</td>
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<tr>
<td></td>
<td></td>
<td>In more than 75% of the cases 44.4%</td>
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</tbody>
</table>

<p>| Immediate Post–Op Vitals         | 14%    | &lt;10% of the cases 40% |
|                                  |        | 10–25% of the cases 20% |
|                                  |        | 26–50% of the cases 26.7% |
|                                  |        | 51–75% of the cases 13.3% |
|                                  |        | &gt; 75% of the cases 0% |</p>
<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Response</th>
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<tbody>
<tr>
<td>Pain Medications Given</td>
<td>17%</td>
<td>&lt;10% of the cases 20% 10–25% of the cases – 20% 26–50% of the cases 20% 51–75% of the cases 33.3% &gt;75% of the cases 6.7%</td>
</tr>
<tr>
<td>Other Medications Given</td>
<td>47%</td>
<td>&lt;10% of the cases 0% 10–25% of the cases 0% 26–50% of the cases 33.3% 51–75% of the cases 60% &gt;75% of the cases 6.7%</td>
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</tbody>
</table>
Recommendations

- Document everything in ALL surgical and anesthetic procedures
- Reorganize intraoperative anesthesia record to fit standards recommended by the Uganda Ministry of Health or the ASA
- Stress the importance of proper documentation to staff at every level of training
- Improve upon the perioperative communication between surgical, anesthesia, and nursing staff
Limitations

- This sample selection contained a significant amount of surgeries from 1 month and could have skewed the results towards either direction.
- Standards of perioperative care adopted at MRRH are not clear, making it difficult to compare the practice at MRRH to standards stated.
Acknowledgements

- Dr. Stephen Ttendo
- Manfred Amanya
- Anesthesia, surgical, and nursing staff at MRRH
- GE/NMF Program and Faculty
- Fellow GE/NMF Scholars
References

- American Society of Anesthesiologists. “Guidelines For Patient Care in Anesthesiology” October 2011
- Walder, Bernhard Improvement of perioperative care for better outcomes after surgery *European Journal of Anaesthesiology*, v. 28 issue 1, 2011 p. 7–9